

**Remarks**

The above amendments and these remarks are responsive to the Office Action mailed April 6, 2006. Applicants thank the Examiner for carefully considering the subject application.

**§ 102 Rejections**

Applicants respectfully traverse the rejection of claim 1 as anticipated by U.S. Patent No. 6,062,186 to Barnes et al. ("Barnes"). This is because Barnes does not teach every element of claim 1. For example, Barnes does not teach the element of varying a number or pattern of operating valves in at least a cylinder of said engine after said combustion event. In fact, Barnes does not disclose varying a number or pattern of operating valves in any manner. Barnes instead discloses varying a timing of intake and exhaust valves in the cited passages. It will be noted that "pattern" as used herein indicates a spatial pattern of valves, and not a timing of any individual valve. This is taught in the present specification in many locations, including but limited to in the discussion of Figures 21-27. To clarify this difference between claim 1 and the disclosure of Barnes, claim 1 is herein amended to recite varying a number or spatial pattern of operating valves in at least a cylinder of said engine after said combustion event. Because claim 1 is not anticipated by Barnes, applicants respectfully request the rejection of claim 1, as well as dependant claims 3-7, 26 and 27, as anticipated by Barnes.

Next, applicants also respectfully traverse the rejection of claim 8 as anticipated by Barnes. This is at least for the reason that Barnes does not teach the element of claim 8 of varying a number or pattern of operating valves in at least a cylinder of said engine, during a cycle of said cylinder, after said combustion event. As with claim 1, applicants herein amend claim 8 to recite that the pattern of operating valves comprises a spatial pattern to clarify this

Page 9 – AMENDMENT

Serial No. 10/805,645; Record ID 81092778

term. Applicants respectfully request the rejections of claim 8 and dependant claims 10-12 as anticipated by Barnes be withdrawn.

Next, applicants respectfully traverse the rejection of claim 16 as anticipated by Barnes. Nevertheless, applicants herein amend claim 16 to recite a method for starting an internal combustion engine with electrically actuated valves comprising closing a first number or spatial pattern of exhaust valves of said engine in response to a request to start said engine, opening at least an intake valve of said engine in response to said request, rotating engine in response to said request, closing said at least one intake valve, injecting fuel to said at least a cylinder of said engine, combusting said fuel in said at least a cylinder of said engine, operating said first number or spatial pattern of exhaust valves in said at least a cylinder after said combustion in said at least a cylinder, and operating a different number or spatial pattern of intake valves or exhaust valves after operating said first number or spatial pattern of exhaust valves in said at least a cylinder. Claim 16 as amended recites a combination of elements not taught by Barnes. Applicants therefore respectfully request the rejections of claim 16 be withdrawn.

Next, applicants traverse the rejection of claim 21 as anticipated by Barnes. Nevertheless, applicants herein amend claim 21 to recite, in part, closing said at least an exhaust valve in said at least a cylinder before a first air induction event in said at least a cylinder, injecting fuel into said at least a cylinder, opening said at least an intake valve in said at least a cylinder after injecting fuel into said at least a cylinder, inducting an air amount, and combusting said injected fuel in said at least a cylinder. In contrast, Barnes discloses filling a cylinder with air before injecting a fuel into the cylinder. Barnes therefore does not teach all of the elements of amended claim 21. Applicants therefore respectfully request that this rejection be withdrawn.

Page 10 – AMENDMENT

Serial No. 10/805,645; Record ID 81092778

Finally, applicants respectfully traverse the rejection of claim 25 as anticipated by Barnes. Claim 25 recites, in part, a computer readable storage medium having stored data representing instructions executable by a computer to control an internal combustion engine of a vehicle, said storage medium comprising instructions for varying a number or pattern of operating valves in at least a cylinder of said engine after said combustion event. As described above in the context of claim 1, Barnes does not disclose varying a number or pattern of operating valves in a cylinder. Instead, Barnes teaches, at the most, varying a timing of a valve. Applicants herein amend claim 25 to clarify that the pattern comprises a spatial pattern. Because Barnes does not anticipate claim 25, applicants respectfully request this rejection to be withdrawn.

#### § 103 Rejections

Applicants respectfully traverse the rejections of claims 13-15 and 29-31 as obvious over Barnes. This is at least for the reason that Barnes does not disclose or suggest all of the elements of these claims.

First, claims 13-15 depend from and include all of the elements of claim 8. As described above for claim 8, Barnes fails to teach or suggest at least the element of claims 13-15 of varying a number or spatial pattern of operating valves in at least a cylinder of said engine, during a cycle of said cylinder, after said combustion event. Therefore, claims 13-15 are not *prima facie* obvious over Barnes. Applicants therefore respectfully request that this rejection be withdrawn.

Next, claims 29-31 depend from and include all of the elements of claim 1. As described above for claim 1, Barnes fails to teach or suggest at least the element of varying a number or spatial pattern of operating valves in at least a cylinder of said engine after said combustion

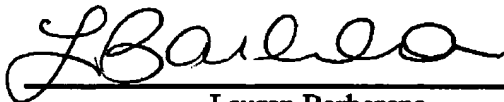
event. Therefore, claims 27-29 are not *prima facie* obvious over Barnes. Applicants therefore respectfully request that this rejection be withdrawn.

Based on the foregoing comments, the above-identified application is believed to be in condition for allowance, and such allowance is courteously solicited. If any further amendment is necessary to advance prosecution and place this case in allowable condition, the Examiner is courteously requested to contact the undersigned by fax or telephone at the number listed below.

Please charge any cost incurred in the filing of this Amendment, along with any other costs, to Deposit Account No. 06-1510. If there are insufficient funds in this account, please charge the fees to Deposit Account No. 06-1505.


CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence is being sent to the United States Patent and Trademark Office via facsimile at (571) 273-8300 on July 6, 2006.



Lauren Barberena

Respectfully submitted,  
ALLEMAN HALL MCCOY RUSSELL &  
TUTTLE, LLP

 # 43,653  
Christopher S. Tuttle  
Registration No. 41,357  
of Attorneys for Applicant  
806 SW Broadway, Suite 600  
Portland, Oregon 97205  
Telephone: (503) 459-4141  
Facsimile: (503) 459-4142